503581989 11/23/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT3628617 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STANLEY JOHN	10/22/2015
SANDEEP KUMAR GOEL	10/22/2015
TZE-CHIANG HUANG	10/22/2015
YUN-HAN LEE	11/09/2015

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMANY LTD.	
Street Address:	NO. 8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK	
City:	HSINCHU	
State/Country:	TAIWAN	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14874881

CORRESPONDENCE DATA

Fax Number: (949)250-3178

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 9493872885

Email: inbox@wpatca.com
Correspondent Name: ANTHONY KING

Address Line 1: 1100 QUAIL ST, SUITE 204

Address Line 4: NEWPORT BEACH, CALIFORNIA 92660

ATTORNEY DOCKET NUMBER: 18506-870

NAME OF SUBMITTER: ANTHONY KING

SIGNATURE: /Anthony King/

DATE SIGNED: 11/23/2015

Total Attachments: 3

source=US5530-Assignment_18506-870#page1.tif source=US5530-Assignment_18506-870#page2.tif source=US5530-Assignment_18506-870#page3.tif

PATENT 503581989 REEL: 037120 FRAME: 0674

Your Ref.: P20150575US00

US ONLY

ASSIGNMENT

WHEREAS, I(we), <u>JOHN</u>, <u>STANLEY</u>, <u>GOEL</u>, <u>SANDEEP KUMAR</u>, <u>HUANG</u>, <u>TZE-CHIANG</u> and <u>LEE</u>, <u>YUN-HAN</u> whose post office address(es) appear(s) below, hereinafter referred to as ASSIGNOR, have invented certain new and useful invention entitled

POWER STATE COVERAGE METRIC AND METHOD FOR ESTIMATING THE SAME

(hereinafter referred to as the I is executed on even date herew				atent /Utility Patent
☐ United States Design I				
☐ executed on:				
	ber 2015 Ser ternational Patent Applicati	ial No.: 14/87 on No.: 1	4,881 filed:	designating the
	as U.S. Patent No	u:		
WHEREAS, <u>TAIWAN SEM</u>	ICONDUCTOR MAN	UFACTURING (COMPANY LT	D. whose post offic
address is NO.8, LI-HSIN				
hereinafter referred to as ASSI the United States and its territo		ing the entire right,	title and interest	in and to the same i
NOW THEREFORE C			4.1-1. 1-1	.1

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application for the full term or terms for which the same may be granted, including all priority rights under any International Convention.

ASSIGNOR further covenants that no assignments, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment;

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the INVENTION that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance, litigation and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ALSO, ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behoof; and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

Assignor Name JOHN, STANLEY	1441 MILLENIUM TERRACE, FREMONT, CA 94538, U.S.A.
Signature of Assignation (X) Name of Witness (optional)	Date of Signature (X) 10 22 20 5 Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

PATENT REEL: 037120 FRAME: 0675

Assignor Name GOEL, SANDEEP KUMAR	3420 FINNIAN WAY, UNIT 404, DUBLIN, CA 94568, U.S.A.
Signature of Assignor (\$ \(\square\)	Date of Signature 10 22 2015
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name HUANG, TZE-CHIANG	Address 1435 CHAVEZ WAY, SAN JOSE, CA 95131, U.S.A.
Signature of Assignor (X)	Date of Signature /0/22/2015
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name LEE, YUN-HAN	Address NO.3, LANE 3, SONGCUEI RD., BAOSHAN TOWNSHIP, HSINCHU COUNTY 308, TAIWAN (R.O.C.)
Signature of Assignor (X)	Date of Signature (X)
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

	·
Assignor Name GOEL, SANDEEP KUMAR	Address 3420 FINNIAN WAY, UNIT 404, DUBLIN, CA 94568, U.S.A.
Signature of Assignor (X)	Date of Signature (X)
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
Assignor Name HUANG, TZE-CHIANG	1435 CHAVEZ WAY, SAN JOSE, CA 95 31, U.S.A.
Signature of Assignor (X)	Date of Signature (X)
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)
Assignor Name LEE, YUN-HAN	Address NO.3, LANE 3, SONGCUEI RD., BAOSHAN TOWNSHIP, HSINCHU COUNTY 08, TAIWAN (R.O.C.)
Signature of Assignor (M)	Date of Signature (X) 2015-11-9
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)